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EXAMINER

BENZON, GREG C

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ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

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DETAILED ACTION

This application has been examined. Claims 4-5, 8-16, 20-21, 24-28, 32, 36-37 , 54-58 are pending. Claims 1-3, 6-7, 17-19, 22-23, 29-31, 33-35, 38-53 are cancelled. Claims 58 is submitted as a new claim.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/22/2009 has been entered.

Priority

This application claims benefits of priority from Foreign Application 2004-022902 filed January 30, 2004. (JAPAN)

The effective date of the claims described in this application is January 30, 2004.

Response to Arguments

Applicant's arguments filed 12/22/2009 have been fully considered but they are moot in view of the new grounds for rejection.

The Applicant presents the following argument(s) [*in italics*]:

With regard to claim 58, the combination of Verma in view of Knowledge is silent about a comparison of the device identifiers, much less a least significant digit of the device identifiers.

The Examiner notes that Verma-Keane disclosed (re. Claim 58) a comparison of a least significant digit of a communication destination device identifier to a least significant digit of a communication source device identifier. (Keane-Column 8 Lines 55-65, *the process of determining conflicting addresses involves comparing the device addresses to see if the addresses are identical, said comparison inherently involving all the digits of the address information including the least significant bit*)

The Applicant presents the following argument(s) [*in italics*]:

... the combination of Verma and Knowledge... do not serve to identify the communication destination device, much less identify the communication destination device before tunnel communications begin as claimed.

The Examiner respectfully disagrees with the Applicant.

Verma Column 6 Lines 10-35, Column 9 Lines 35-45 distinguishes between caller (tunnel initiator) and callee (tunnel endpoint). Further Verma disclosed a table for storing relationships between endpoints and their addresses.

Verma disclosed distinguishes between caller (tunnel initiator) and callee (tunnel endpoint) before the tunnel communications begin.

The Applicant presents the following argument(s) [*in italics*]:

... According to claim 4, the address of the information- processing device changes depending on whether the information-processing device is the caller or the callee, and for each tunnel communication...Verma also fails to teach an address determination part of an information-processing device performs such a change as claimed...

The Examiner respectfully disagrees with the Applicant.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., '*address changes depending on whether the information-processing device is the caller or the callee*') are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

There is nothing in the claim language that indicates that the assigned *address changes depending on whether the information-processing device is the caller or the callee.*

The Applicant presents the following argument(s) [*in italics*]:

Regarding claims 20 and 28...the combination of Verma and Knowledge fails to teach, suggest or otherwise render predictable [wherein]... The temporary assignment of addresses by the server for each tunnel communication based on the source and destination of the tunnel communication allows addressed to be recycled, and reused for different information-processing devices during different tunnel communications.

The Examiner respectfully disagrees with the Applicant.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., '*The temporary assignment of addresses by the server for each tunnel communication based on the source and destination of the tunnel communication allows addressed to be recycled, and reused*') are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

There is nothing in the claim language that indicates that the assigned *addresses are temporary assignment of addresses allowing addresses to be recycled, and reused.*

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8-9, 16, 20, 24-25,27-28,54 rejected under 35 U.S.C. 103(a) as being unpatentable over Verma (US Patent 6614809) in view of what was well-known in the networking art.

Verma disclosed wherein a tunnel media translator receives, stores, and maps both source device tunnel information and destination device tunnel information to each other in order to effect the tunnel communication. The translator maps an IP address and UDP port of an IP link to a virtual path identifier (VPI) and virtual channel identifier (VCI) for an ATM network. The ATM network address may be determined dynamically for each source and destination device. In order to obtain a network address on the ATM network, tunnel media translator 440 will send a host name resolution (HNR) call, which operates in a manner similar to a DNS call, that contains the host name value. In response to the HNR call, the host name server 474 returns a HNR reply that contains a network address that corresponds to the host name or system identifier in the HNR call.

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Verma disclosed (re. Claim 4) an information-processing device for a communication source that performs tunnel communication with a communication destination device, comprising:

a tunnel communication part including a network interface for communicating with a server via a communication line of a communication network, wherein the tunnel communication part acquires an identifier and an IP address of a communication destination device from the server (Verma-Column 7 Lines 35-45, destination tunnel endpoint 150 *inserts its own address and tunnel identifier into the SCCRP connection reply message*) and then performs the tunnel communication over the communication network with encapsulated communication target data;(Verma-Column 4 Lines 15-45)

a judgment part for determining whether the information-processing device is to be the source of the tunnel communication or a destination of the tunnel communication in each of the tunnel communications; (Verma-Column 8 Lines 30-45) and

an address determination part including a computer-readable memory storing a relationship that returns a caller address (Verma-' *the host name server 474 returns a HNR reply that contains a network address that corresponds to the host name or system identifier in the HNR call* ') between a caller address to be included in the encapsulated communication target data when the information-processing device is identified as the source by the judgment part and a callee address to be included in the

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encapsulated communication target data when the information-processing device is identified as the destination by the judgment part , wherein the caller address is different from the called address, wherein the address determination part selects the caller address for the information-processing device when the information-processing device is the source and the callee address for the information-processing device when the information-processing device is the destination to be included in the communication target data according to the relationship based at least in part on the determination by the judgment part. (Verma-figure 7a, Column 4 Lines 35-55, Column 6 Lines 15-35)

While Verma does not explicitly disclose distinguishing between a caller or callee it would have been obvious to a person of ordinary skill in the networking art that a remote client that originates the tunnel request is a caller, and the responding entity on the second network is a callee and that Verma is able to distinguish between the caller and callee.

Verma Column 6 Lines 10-35, Column 9 Lines 35-45 distinguishes between caller (tunnel initiator) and callee (tunnel endpoint). Further Verma disclosed a table for storing relationships between endpoints and their network addresses. Verma uses the network address returned by the host name server in translating the tunnel packets without de-tunneling or re-tunneling the packets.

Claims 16, 28 (re. system) is rejected on the same basis as Claim 4.

Claims 20 (re. server) is rejected on the same basis as Claim 4.

The motivation to combine described in Claim 4 applies to Claims 16,28,and 20.

Verma disclosed (re. Claim 8,24) a tunnel communication identifier acceptor for accepting a tunnel communication identifier for identifying the tunnel communication; wherein the address determination part determines an address used for the communication target data, according to the determination by the judgment part and the tunnel communication identifier. (Verma-Column 7 Lines 35-55)

The motivation to combine described in Claim 4 applies to Claims 8,24.

Verma disclosed (re. Claim 9,25) wherein the address determination part determines a part of the address used for the communication target data according to the tunnel communication identifier, and determines another part of the address used for the communication target data according to the determination by the judgment part. (Verma-Column 6 Lines 35 thru Column 7 Lines 55)

The motivation to combine described in Claim 4 applies to Claims 9,25.

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Verma disclosed (re. Claim 27) wherein the address output part transmits the first address and the second address to the first information-processing device and the second information-processing device. (Verma-Column 6 Lines 35 thru Column 7 Lines 55)

The motivation to combine described in Claim 4 applies to Claims 27.

Verma disclosed (re. Claim 54) wherein the relationship includes a function that determines at least one of the caller address and the callee address as a function of a variable established by the signal from the judgment part. (Verma-Column 9 Lines 60 thru Column 10 Lines 5, *'host name resolution call'*)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5,10,21,26 rejected under 35 U.S.C. 103(a) as being unpatentable over Verma (US Patent 6614809) in view of Hopprich (US Patent 6792474).

While Verma disclosed an address determination part for providing caller and callee address, Verma did not disclose a plurality of predetermined addresses available to be selected for caller and callee.

While Verma substantially disclosed the claimed invention Verma did not disclose (re. Claim 5,21) wherein the address determination part determines the address used for the communication target data by selecting from a plurality of predetermined addresses available to be selected as the caller address and a plurality of additional predetermined addresses available to be selected by the address determination part as the callee address, and the address determination part determines at least one of the caller address and the callee address from among the plurality of the predetermined addresses and the plurality of additional predetermined addresses to be included in the communication target data.

Hopprich Column 13 Lines 35-40 disclosed wherein an address server can maintain each set of guest addresses (two or more sets) and can assign a particular address for a requesting computer system from one of the sets based on the verified identity of the requesting computer system. In Hopprich the requesting computer systems are equivalent to the caller and callee devices because the said computer systems are establishing a data communications session. The address assignment information allows the data communications devices to create special "tunnel" routes or network paths between the devices.

Hopprich disclosed (re. Claim 5,21) wherein the address determination part determines the address used for the communication target data by selecting from a plurality of predetermined addresses (Hopprich-*'a set of guest addresses'*) available to be selected as the caller address and a plurality of additional predetermined addresses available to be selected by the address determination part as the callee address, and the address determination part determines at least one of the caller address and the callee address from among the plurality of the predetermined addresses and the plurality of additional predetermined addresses to be included in the communication target data. (Hopprich- Column 13 Lines 35-40 , *address server can maintain each set of guest addresses (two or more sets) and can assign a particular address for a requesting computer system from one of the sets based on the verified identity of the requesting computer system. In Hopprich the requesting computer systems are equivalent to the caller and callee devices because the said computer systems are establishing a communications session. The address assignment information allows the data communications devices to create special "tunnel" routes or network paths between the devices.)*

Verma and Hopprich are analogous art because they present concepts and practices regarding establishment of tunnel communications. At the time of the invention it would have been obvious to combine Hopprich into Verma. The motivation for said combination would have been to enable the DHCP server to inform the other DHCP servers (if others exist) that the selected address is now in use on the network by

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a specific computer system and that this address should not be subsequently selected for assignment to another computer system until it is released by the computer system.

The motivation to combine described in Claim 4 applies to Claims 5,21.

Verma-Hopprich disclosed (re. Claim 10,26) wherein the address determination part determines at least a part of the address used for the communication target data (Verma-Column 6 Lines 35 thru Column 7 Lines 55) by selecting from a plurality of predetermined addresses. (Hopprich- Column 13 Lines 35-40 , *address server can maintain each set of guest addresses (two or more sets) and can assign a particular address for a requesting computer system from one of the sets based on the verified identity of the requesting computer system. In Hopprich the requesting computer systems are equivalent to the caller and callee devices because the said computer systems are establishing a communications session. The address assignment information allows the data communications devices to create special "tunnel" routes or network paths between the devices.)*

The motivation to combine described in Claim 5 applies to Claims 10,26.

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11-15,32,36,37,55-58 rejected under 35 U.S.C. 103(a) as being unpatentable over Verma (US Patent 6614809) in view of Keane (US Patent 7395354).

Verma disclosed wherein a tunnel media translator receives, stores, and maps both source device tunnel information and destination device tunnel information to each other in order to effect the tunnel communication. The translator maps an IP address and UDP port of an IP link to a virtual path identifier (VPI) and virtual channel identifier (VCI) for an ATM network. The ATM network address may be determined dynamically for each source and destination device. In order to obtain a network address on the ATM network, tunnel media translator 440 will send a host name resolution (HNR) call, which operates in a manner similar to a DNS call, that contains the host name value. In response to the HNR call, the host name server 474 returns a HNR reply that contains a network address that corresponds to the host name or system identifier in the HNR call.

Verma (re. Claim 32) substantially disclosed the claimed invention as described in the rejection for Claim 1.

Furthermore Verma disclosed (re. Claim 32) *a plurality of different tunnel communication*, (Verma-Table 2) and defining a relationship for each tunnel communication.

Verma disclosed a maintaining a table of relationships for at least one tunnel communications. The Examiner notes that while Verma does not explicitly indicate maintaining a plurality different tunnel communications, it would have been obvious to a person of ordinary skill in the networking art that the Verma tunnel media translator, using the said table, is enabled to store and maintain a plurality of different tunnel communication relationships.

While Verma substantially disclosed the claimed invention Verma did not disclose (re. Claim 32) *wherein at least one of the caller address and the callee address is to be used for different information-processing devices involved in a plurality of tunnel communications*.

The Examiner interprets the above limitation in Claim 32 to indicate that caller and callee devices as distinct devices but using the same address.

While Verma substantially disclosed the claimed invention Verma did not disclose (re. Claim 11) a detection part for detecting whether two or more addresses used for the communication target data are the same in the two or more tunnel communications; and an address changing part for changing at least one of the

addresses used for the communication target data if the detection part detects that two or more addresses are the same.

Keane disclosed (re. Claim 32) wherein at least one of the caller address and the callee address is to be used for different information-processing devices involved in a plurality of tunnel communications. (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

Keane disclosed (re. Claim 11) a detection part for detecting whether two or more addresses used for the communication target data are the same in the two or more tunnel communications; (Keane-Column 8 Lines 25 thru Column 9 Lines 25) and an address changing part for changing at least one of the addresses used for the communication target data if the detection part detects that two or more addresses are the same. (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

Verma and Keane are analogous art because they present concepts and practices regarding establishment of tunnels and tunnel identifiers. At the time of the invention it would have been obvious to combine Keane into Verma. The motivation for said combination would have been to enable a less cumbersome approach for resolving address conflicts in networks. (Keane-Column 2 Lines 15-25)

Verma-Keane disclosed (re. Claim 12) an address change information receiver for receiving address change information including information related to an address change; (Keane-Column 8 Lines 25 thru Column 9 Lines 25) and an address changing

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part for changing the address used for the communication target data, according to the address change information. (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

The motivation to combine described in Claim 11 applies to Claims 12.

Verma-Keane disclosed (re. Claim 13) a detection part for detecting whether two or more addresses that are used for the communication target data are the same in the two or more tunnel communications; (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

an address agreement information transmitter for transmitting address agreement information showing that addresses are the same if the detection part detects that two or more addresses are the same; (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

an address change information receiver for receiving address change information including information related to address change; (Keane-Column 8 Lines 25 thru Column 9 Lines 25) and

an address changing part for changing the address used for the communication target data according to the address change information. (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

The motivation to combine described in Claim 11 applies to Claims 13.

Verma-Keane disclosed (re. Claim Claim 14) an address output part for outputting the address determined by the address determination part. (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

The motivation to combine described in Claim 11 applies to Claims 14.

Verma-Keane disclosed (re. Claim 15) wherein the address output part transmits the address determined by the address determination part. (Keane-Column 8 Lines 25 thru Column 9 Lines 25)

The motivation to combine described in Claim 11 applies to Claims 15.

Verma-Keane disclosed (re. Claim 36,37) a tunnel communication identifier acceptor for accepting a tunnel communication identifier for identifying the tunnel communication; wherein the address determination part determines an address used for the communication target data, according to the determination by the judgment part and the tunnel communication identifier. (Verma-Column 7 Lines 35-55)

The motivation to combine described in Claim 32 applies to Claims 36,37.

Verma-Keane disclosed (re. Claim 55) wherein the relationship comprises a lookup table including at least one caller address corresponding to the caller and at

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least one

callee address corresponding to the callee. (Verma-Column 9 Lines 60 thru Column 10 Lines 5, *'host name resolution call'*)

Verma-Keane disclosed (re. Claim 56) wherein the lookup table comprises a plurality of different caller addresses available to be selected for the caller and a plurality of different callee addresses available to be selected for the callee. (Verma-Column 9 Lines 60 thru Column 10 Lines 5, *'host name resolution call'*)

Verma-Keane disclosed (re. Claim 57) wherein the relationship comprises a function including a variable (Verma-*'host name value'*) that is given a value in response to said determining which of the first information-processing device and the second information- processing device performing tunnel communication is the caller and which is the callee, and wherein the function returns the caller address (Verma-*'a reply containing the network address'*) or the callee address based on the value of the variable. (Verma-Column 9 Lines 60 thru Column 10 Lines 5, *'host name resolution call'*)

Verma-Keane disclosed (re. Claim 58) a comparison of a least significant digit of a communication destination device identifier to a least significant digit of a communication source device identifier. (Keane-Column 8 Lines 55-65, *the process of determining conflicting addresses involves comparing the device addresses, said*

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comparison inherently involving all the digits of the address information including the least significant bit)

The motivation to combine described in Claim 32 applies to Claims 54-58.

Conclusion

Examiner's Note: Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Please refer to enclosed PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GREG BENGZON whose telephone number is (571)272-3944. The examiner can normally be reached on Mon. thru Fri. 8 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571)272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/G. B./
Examiner, Art Unit 2444

/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444

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